

1994 Paper 7 Question 4

Digital Communication II

Two Ethernets can be interconnected using a *bridge*, which forwards packets between the networks at the OSI Datalink layer. Describe the operation of an Ethernet bridge. [7 marks]

In a network composed of several bridged Ethernets joined in an arbitrary topology, describe how the problem posed by multiple alternative paths is solved. [8 marks]

As the number of connected systems gets large, how can the performance of the packet forwarding in such a network be improved by use of suitable hardware and/or software? [5 marks]